

C-4

ANNUAL REPORT OF OPERATIONS FOR YEAR 2018			
<b>I. Facility Name:</b> Site 1		<b>NPDES #</b> <u>WA0026336</u>	
Operator Name ( <i>Permittee</i> ): Pacific Aquaculture Inc.		<b>Phone:</b> 509-634-4446	
Address: 3378 Columbia River Rd. Nespelem, WA 99155		<b>Fax:</b>	
Owner Name ( <i>if different from operator</i> ): Pacific Seafood		<b>E-Mail:</b> DSherratt@pacseafood.com <b>Phone:</b> 509-634-4446	
<b>II. Annual Production:</b>		<i>Harvestable weight produced in the year</i> 3,065,523    pounds	
<b>III. Food used:</b>		<i>Number of pounds of food fed to the fish during the maximum month:</i> 693,967    pounds	
<b>IV. Noncompliance Summary:</b> <i>Include description &amp; dates of noncompliance (including spills), the reasons for such incident, and the steps taken to correct the problem. Attach additional pages, if necessary.</i>			
<b>V. Best Management Practices (BMP) Plan</b>			
BMP Plan has been reviewed this year? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
BMP Plan fulfills the requirements set forth in the permit: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
<i>Summarize changes in the BMP Plan since last annual report. Attach additional pages, if necessary.</i>			
<b>VI. Solid Waste Disposal</b>			
Type of Solid Waste	Method of Disposal	When	Where
See Attached			

## VII. Fish Mortalities

Include description & dates of mass mortalities (more than 5%/week), the reasons for each incident, and the steps taken to correct the problem. Attach additional pages, if necessary. Include total mortalities from all causes.

Date	Cause of deaths	Pounds of fish
May 2018	Total dissolved gas at fatal levels due to activities at the Grand Coulee Dam. Gas caps were deployed to hold fish at depth, constant contact USBR to stay ahead of high flow events to prevent as much mortality as possible. Total pounds are from all 3 sites (NPDES permits WA0026336, WA0026328, WA0026719).	12,566
July-August 2018	Proliferative Kidney Disease. This is a parasite with no prescribable treatment. Mortalities were culled on a daily basis, and we are working on broodstock development with the intent of isolating genetic resistance. Total pounds are from all 3 sites (NPDES permits WA0026336, WA0026328, WA0026719).	873,937

## VIII. Chemical Usage (including drugs and pesticides)

Date	Chemicals used, number of days used, and maximum concentration in effluent.	Yearly Total

## IX. Inspections and Repairs for production and wastewater treatment systems

Date Inspected	Date Repaired	Description of system inspected and/or repaired

## X. Signature & Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure the qualified personnel properly gather and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature: Dan Sherratt Title/Company: Fish Tech/PAC

Print Name: Dan Sherratt Date: 1-12-19  
WA2019



P501-315						15,919	11,573		19,513							58,459	120	20,663	71	1,50	2,34	1,29					
P501-418						29,117	39,456								82,251	1,50	137,170	102	1,10	1,64	1,70	10,16					
P501-214						51,511	18,893		2,643						81,713	2,968	134,374	21,582	102	1,00	1,58	13,99					
P501-215						21,239	55,241	(2,651)							80,330	12,000	208,600	4,4264	117	1,11	1,79	1,20	25,79				
P501-220						8,324	14,323	68,271							80,530	1,740	195,812	191,548	178	101,968	141	1,08	1,30	1,53	12,25		
P501-221	271,667	418	38,137			204	957	119,336	117,226								1,138	6	165,040	1,125	1,07	1,67	10				
P501-222	188,380	201	37,904			14,841	13,962	31,086	171,349								108,256	1,061	205,324	47	1,32	1,59	2,00				
P501-223						17,900	22,219	3,163	3,164			80,345	2,401	205,380	(86)		215,590	108	168,532	53	1,40	1,63	1,68				
P501-223	478,647	271	12,308			60,955	57,264	208,296	255,665								131,435	264	72,826	54	3,30	3,81	2,03				
P501-225						1,627	1,736	1,841	1,409								9,575	13	7,755	49	1,09	1,27	95				
P501-226						1,095	1,104								48,626	1,712	172,246	85,062	71	45,156	65	1,47	1,61	1,90	8,52		
P501-227	181,542	354	17,161			80,778	35,524	122,830	129,635								135,948	205	73,593	61	1,25	1,77	2,24				
P501-227						13,047	10,280									70,081	70	41,180	97	1,28	1,72	1,81					
P501-228						2,729	3,249									114,878	1,772	238,000	67,240	77	45,004	68	1,47	1,58	2,09	16,04	
P501-228	48,810	124	3,472			2,851	4,338	2,996	8,969	1,155	9,846				18,399	2,131	22,890	188,988	314	29,354	71	1,42	1,38	1,86	3,06		
P501-229						106,424	21	2,201	31,817	4,024	61						14,057	182	11,050	111	90	1,23	1,83				
P501-229						157,657	21	3,223	74,874	11,541	43						13,394	185	3,501	148	36	3,27	1,26				
P501-229						90,079	35	1,052	69,156	10,871	42						15,164	190	7,122	115	30	2,27	1,09				
P501-229						33,183	1,250		(2,429)						26,614	1,321	27,187	22,006	84	12,418	112	1,13	1,82	2,10	3,62		
P501-311						40,314	9,051		369						80,170	361	36,924	143	25,749	1,27	98	1,32	2,12	5,71			
P501-311						158,341	21	2,274	20,661	12,580		8,739				28,319	1,032	30,256	43,647	182	27,108	6,03	1,41	1,50	1,95	4,03	
P501-312						157,838	24	3,806	25,807	2,718	373	(3,173)					24,383	158	21,207	3,03	1,62	1,19	1,62				
P501-313						64,347	15,204	2,125	6,909	32,587	592	32,329					18,114	130	59,401	1,27	1,26	1,23	2,03				
P501-313						1,161	1,170								51,422	1,054	54,226	4,398	15	2,068	41	1,39	1,12	1,80	7,22		
P501-314						165	187								42,396	1,041	48,933	16,412	20	14,537	49	3,13	1,14	3,94	8,88		
P501-314						128,819	20	2,683	20,485	5,464	(7,905)	(17,931)					26,136	287	88,187	1,401	1,20	1,24	1,81				
P501-315						940	692								43,228	1,103	49,700	61	29,100	113	1,14	1,17	3,16	8,36			
P501-315						566	844								45,365	1,127	55,807	30,504	65	27,623	113	1,15	1,18	3,16	7,42		
P501-316						2,330	2,369								40,770	1,069	49,989	30,129	58	24,039	1,02	1,13	1,24	2,95	8,44		
P501-317						126,402	21	2,659	20,564	4,569	(3,973)						32,997	163	26,184	1,46	1,61	1,17	1,84				
P501-317						3,260	909	24,048	112,579							32,175	85	21,949	1,22	1,41	1,43	1,96					
P501-318						122,740	21	3,567	18,288	1,649	(2,571)						15,202	142	13,161	1,33	1,08	1,16	1,74				
P501-318						1,851	875									69,684	947	53,605	8,215	78	1,10	1,19	2,99	7,16			
P501-318						33,987	7,371	(6,657)	(12,694)							54,458	124	26,470	1,31	1,24	1,49	1,97					
P501-319						30,704	182	38,264	1,243	1,109	254	(3,483)	6,117	303	5,340		38,236	1,040	38,742	3,626	10	1,501	56	1,38	2,42	5,30	
P501-319						153,364	22	1,420	30,600	6,002	(2,929)	(8,413)					17,549	160	49,425	1,58	1,67	1,22	1,76				
P501-321						695	463									45,965	921	46,803	19,583	42	16,671	1,02	1,00	1,11	2,54	6,10	
P501-321						251	18									22,862	372	26,284	3,701	41	8,275	59	1,08	1,18	3,50		
P501-322						626	415									67,676	973	94,481	20,625	24	17,765	83	1,12	1,13	3,13	12,63	
P501-323						748	332									57,655	1,070	61,720	16,475	31	16,405	95	1,17	1,19	3,32	8,33	
P501-323						144,262	63	7,804	55,254	7,813	211,060	(7,106)						78,387	153	58,805	1,65	1,03	1,14	3,90			
P501-323						143,297	66	7,236	19,621	4,362	(19,403)	(9,322)					67,860	1,020	61,152	1,03,299	148	26,565	1,02	1,00	1,11	2,24	8,10
P501-324						243,956	100	42,983	46,071	26,492	(5,183)	(21,655)						110,182	103	110,834	96	1,19	1,43	1,71			
P501-325						3,943	3,749									27,111	1,439	141,803	100,171	85	64,984	85	1,49	2,40	13,10		
P501-325						2,030	2,088									27,479	1,757	138,265	87,072	63	36,217	85	1,45	1,38	2,62	12,89	
P501-326						161,863	47	7,971	12,086	1,229	382						141,763	564	79,066	88,782	102	72,936	2,45	96	9,40	10,86	
P501-326						150,792	43	8,802	42,269	5,409	(263)						115,039	477	46,831	49,082	123	48,737	1,94	91	1,01	2,42	7,41
P501-327						246	477									107,564	604	21,406	3,207	8	2,434	82	1,10	* 32	2,10	5,29	
P501-327						244,056	102	34,750	17,987	8,398	1,147						226,369	768	171,152	145,259	121	146,763	1,52	24	37	2,03	12,05
P501-328						243,421	97	23,721	17,925	4,363	8,100						179,453	703	82,591	125,987	119	127,405	1,52	83	2,11	3,04	
P501-328						251,969	22	5,050	2,412	292							124,374	72	17,724	11,044	42	16,070	2,83	20	3,06	2,36	
P501-329						201,553	23	8,486	3,395	79	1,073						286,170	54	19,854	6,346	42	6,496	2,16	56	2,44	2,79	
P501-329						144,382	26	4,116	548	53							143,134	180	28,007	19,752	36	21,887	212	36	3,36	3,47	
P501-330						164,610	42	6,521	299	49							164,398	143	29,531	15,384	61	17,011	3,94	96	2,43	5,14	
P501-330						16,323	220	3,561	357	150	471						15,986	109	12,269	6,042	51	8,519	1,91	91	1,12	10,05	
P501-330						15,820	803	18,211									9,050	89	8,825	37	1,30	1,38	3,30				

PGB1 Induced							63	133		30	10,130	\$ 185	22,843					113	12	23	61	140	4,931	36				
PGB1 Induced2							58,019	41	2,333	1,864	-4,107	(4,226)	(1,573)					18,859	633	11,202	23,903	216	25,656	114	87	370	145	530
PGB1 Induced3							26,489	56	1,364	5972	3,726	(1,435)	754					18,184	643	12,071	25,596	212	19,673	122	92	109	159	537
PGB1 Induced4									115	101								24,941	672	26,629	1,132	35	225	121	110	124	27	9,411
Total	3,655,793	9,76	8,919,254	8,493,817	8,153	469,674	4,004,213	2,600,746	(223,734)	103,829	\$1,400	2,238	16,800	1,991,198	7,420	-10,103,897	\$427,890	-3,35	6,173,310	-16,280,714	327	10,354,897	-381	1,24	3,27	6,71	31,443	

\*All units are in pounds. Parenthesis indicate absolute values.